

REMARKS

Favorable reconsideration of this application in light of the following discussion is respectfully requested.

Claims 1, 3-12, and 14-19 are presently pending in the present application. Claims 1, 12, 14, and 16 have been amended by way of the present Amendment. Claims 2, 13, and 20 have been canceled without prejudice or disclaimer. No new matter is introduced by this amendment.

In the Office Action, claims 1, 2, 5-7, and 10-20 were rejected under 35 U.S.C. §103(a) as being obvious in view of *Weiler et al.* (U.S. Patent No. 5,970,395) and *Randall et al.* (U.S. Patent No. 5,589,833), and claims 3, 4, 8, and 9 were rejected under 35 U.S.C. §103(a) as being obvious in view of *Weiler et al.* and *Randall et al.* and further in view of Agilent PNA Network Analyzers.

Applicants respectfully traverse the obviousness rejections for the reasons set forth below.

Applicants submit that the Office Action fails to establish a *prima facie* case of obviousness, since there is no evidentiary support for the conclusion that the features recited in the claims were known at the time of the present invention, nor that the asserted rationale for combining the references or modifying features therein to arrive at the claimed invention was known at the time of the invention.

MPEP §2141 notes that the Patent Office bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. MPEP §2141 emphasizes that “Office personnel fulfill the critical role of factfinder when resolving the *Graham* inquiries. .... When making an obviousness rejection, Office personnel must therefore ensure that the written record includes findings of fact concerning the state of the art and the teachings of the references applied. ....

Factual findings made by Office personnel are the necessary underpinnings to establish obviousness.” MPEP §2142 further notes that “[t]o reach a proper determination under 35 U.S.C. 103, the examiner must step backward in time and into the shoes worn by the hypothetical ‘person of ordinary skill in the art’ when the invention was unknown and just before it was made. .... Knowledge of applicant’s disclosure must be put aside in reaching this determination, yet kept in mind in order to determine the “differences,” conduct the search and evaluate the “subject matter as a whole” of the invention. .... However, impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art.”

Independent claim 1 of the present application recites “[a] high-frequency measuring system for measuring a device under test, comprising ... at least one high-frequency module, wherein each high-frequency module is placed spatially separated from the measuring-device unit and each high-frequency module is connected to the measuring-device unit via a digital interface ..., wherein input data manually input into the measuring-device unit is processed in the measuring-unit device to form a bitstream for transmission via the digital interface to the at least one high-frequency module and **subsequently forwarded to the device under test**, ... and wherein **at least a first high-frequency module comprises a transmitter device and at least a second high-frequency module comprises a receiver device configured to communicate with the device under test.**” Independent claim 12 recites “wherein the input data is processed in the measuring-unit device to form a second bitstream for transmission via the digital interface to the at least one high-frequency module and **subsequently forwarded to the device under test**, and wherein **at least a first high-frequency module comprises a transmitter device and at least a second high-frequency module comprises a receiver device configured to communicate with the device under test.**” Independent claim 16 recites “forming ... a first bitstream for transmission via a digital interface to at least one high-frequency module and

**subsequently forwarded to the device under test; ... wherein at least a first high-frequency module comprises a transmitter device and at least a second high-frequency module comprises a receiver device configured to communicate with the device.”** The cited art, either when taken singularly or in combination, fail to disclose all of the above features.

In the Office Action, *Weiler et al.* is cited for the teaching of the features of claim 1 except that the Office Action notes that *Weiler et al.* fails to explicitly disclose manually inputting into a measuring device unit and processing input data including assigning input symbols to states in a state diagram of an I-Q level in the measuring device. For such features, the Office Action cites *Randall et al.* It is noted that the Office Action cites portable computer (15) of *Weiler et al.* as the device under test, the monitoring unit (5) as the measuring-device unit, and receiver units (3a-3n) as the at least one high-frequency module.

Independent claims 1, 12, and 16 have been amended to positively recite that the system is configured to, or the method does subsequently forward the bitstream to the device under test. The independent claims have also been amended to recite that “at least a first high-frequency module comprises a transmitter device and at least a second high-frequency module comprises a receiver device configured to communicate with the device.” Thus, it is evident that the communication between the high frequency modules and the device under test is bidirectional. As noted above, the Office Action cites the portable computer (15) of *Weiler et al.* for the teaching of a device under test, yet the apparatus and method described in *Weiler et al.* never discloses forwarding a bitstream to personal computer (15). The personal computer (15) is merely being monitored for high frequency interference signals in a unidirectional manner. In fact, the apparatus and method described in *Weiler et al.* do not include any structure capable of forwarding a bitstream to the personal computer, nor does the reference disclose a reason for doing so.

*Weiler et al.* describes an apparatus for detecting high frequency interference radiation signals, such as radio frequency emissions, onboard a passenger aircraft that includes at least two receiver units for receiving and measuring the interference radiation signal, and a monitoring unit for evaluating the signal measurement results. Each receiver unit respectively includes at least one antenna, the monitoring unit includes an interference computer, and a digital data signal transmission path connects the receiver units to the monitoring unit. The interference computer evaluates the data signals received from the receiver units to determine the location of an interference radiation source within the aircraft, and indicates corresponding location and warning information on a display unit connected to the interference computer.

Thus, the apparatus described in *Weiler et al.* merely receives electromagnetic signals from a portable computer of a passenger on board an aircraft, and does not have the ability to transmit or forward data or information to the portable computer of the passenger. The receiver units 3A-3N of *Weiler et al.* are only receiving units, and thus have no transmission capabilities. Thus, using the apparatus described in *Weiler et al.*, it is impossible to test a device by forwarding input data to the portable computer.

Furthermore, *Randall et al.* describes a personal computer based integrated radar acquisition (PIRAQ) system, which integrates a programmable timing generator, a digital Intermediate Frequency (IF) processor, and a digital signal processor on a standardized personal computer “add-on” electronic circuit module that accepts standard IF input and produces standard radar display outputs. The digital intermediate frequency processor includes an IF pre-processor, a programmable digital matched filter, and a wide dynamic range digital baseband converter. Implementing the PIRAQ system in digital components on a single electronic circuit module for use in a personal computer provides an efficient, low-cost, portable, and

programmable high-performance radar acquisition system hardware base from which radar signals can be digitally processed.

*Randall et al.* describes radar a measuring system, to measure usually a distance, direction, or a velocity of a flying object, so there is communication between antenna (105) and the modules (115, 120); however, there is no device under test in this apparatus and no communication of input data in the manner recited in the claims. Thus, the invention described in *Randall et al.* is not analogous to the present invention, and one of ordinary skill in the art would not have looked to *Randall et al.* or combined the teachings therein with the *Weiler et al.* apparatus to arrive at the claimed invention.

Thus, the cited references, either when taken singularly or in combination, fail to disclose or suggest all of the features recited in independent claims 1, 12, and 16. Accordingly, the Patent Office has failed to fulfill the critical role of factfinder, and has therefore failed to satisfy the initial burden of factually supporting any *prima facie* conclusion of obviousness in light of the pending independent claims. The Applicants request that such evidentiary support be placed on the record, or the obviousness rejections with drawn.

The dependent claims are considered allowable for the reasons advanced for the independent claim from which they depend. These claims are further considered allowable as they recite other features of the invention that are neither disclosed nor suggested by the applied references when those features are considered within the context of their respective independent claim.

Therefore, the present application, as amended, overcomes the rejections of record and is in condition for allowance. Favorable consideration is respectfully requested. If any unresolved issues remain, it is respectfully requested that the Examiner telephone the

undersigned attorney at (703) 519-9957 so that such issues may be resolved as expeditiously as possible.

To the extent necessary, a petition for an extension of time under 37 CFR §1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 504213 and please credit any excess fees to such deposit account.

Respectfully Submitted,

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Date

/Christopher D. Ward/

Christopher D. Ward

Attorney/Agent for Applicant(s)

Reg. No. 41,367

Phouphanomketh Ditthavong

Attorney/Agent for Applicant(s)

Reg. No. 44,658

918 Prince Street  
Alexandria, VA 22314  
Tel. (703) 519-9957  
Fax. (703) 519-9958